



**SHERWIN-WILLIAMS**

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THE SHERWIN-WILLIAMS COMPANY  
Environmental, Health & Regulatory Services  
101 Prospect Avenue NW  
Cleveland, Ohio 44115-1075  
Facsimile: (216) 566-2730

November 9, 2015

Ms. Renee Gelblat  
Remedial Project Manager  
U.S. Environmental Protection Agency, Region II  
290 Broadway, 19<sup>th</sup> floor  
New York, NY 10007

RE: Route 561 Dump Site – Baseline Ecological Risk Assessment, Gibbsboro, New Jersey  
Administrative Order on Consent / Index No. II CERCLA-02-99-2035

Dear Ms. Gelblat:

In fulfillment of the requirement of the Administrative Order on Consent (AOC), Section VII, paragraph 27.f.1., The Sherwin-Williams Company (Sherwin-Williams) is submitting the revised Baseline Ecological Risk Assessment (BERA) for the Route 561 Dump Site located in Gibbsboro, New Jersey.

The U.S. Environmental Protection Agency (EPA) approved the June 5, 2015 revised BERA on the condition that their July 29, 2015 comments were addressed. Sherwin-Williams submitted a response to the condition approval of the BERA on August 20, 2015, which included a revised BERA and response to comments. On October 27, 2015, EPA sent two additional comments on Sherwin-Williams' response to the conditional approval of the BERA. Sherwin-Williams submitted further clarification in an October 27, 2015 e-mail to EPA. EPA's November 6, 2015 e-mail response indicated that Sherwin-Williams had adequately addressed comment #1 and requested the addition of a footnote in Section 3.3 of the BERA to address comment #2.

We have enclosed a digital redline/strikeout of the revised BERA text as well as a clean revised digital and hard copy of the revised BERA text. No changes were requested by EPA to the tables, figures, or appendices. Therefore, we did not resubmit those again.

We are available to discuss by conference call, if needed, at your convenience. If you have any questions or need further information, please do not hesitate to contact me at 216-515-7544, or via e-mail at ken.h.stroebe@sherwin.com.

Sincerely,

Kenneth H. Stroebe  
Sr. Environmental Project Manager  
Corporate Remediation Services

cc:  
R. Puvogel, EPA Region 2  
M. Pensak, EPA Region 2  
R. Souweha, NJDEP (2 copies)  
J. Kealy, NJDEP  
M. Pantliano, HDR

M.L. Capichioni, Sherwin-Williams  
M. Mazanec, Sherwin-Williams (CD only)  
A. Danzig, Sherwin-Williams (CD only)  
T. Verslycke, Gradient

# Baseline Ecological Risk Assessment (BERA) for the Route 561 Dump Site Gibbsboro, New Jersey

## Administrative Order Index No. II CERCLA-02- 99-2035

Prepared for  
The Sherwin-Williams Company  
101 Prospect Avenue  
Cleveland, Ohio 44115

| ~~August~~November, 2015



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represents a statistic such that all observations from the background data set are expected to be less than or equal to the 95% upper simultaneous limit (95% USL), with 95% confidence (Singh and Singh, 2013). The ProUCL technical guidance (Singh and Singh, 2013) recommends the use of USLs when the background data set is small, as is the case with the current background data set (*i.e.*, samples size  $\leq 10$ ). Therefore, the 95% USL (based on the estimated data distribution, normal, log-normal, *etc.*) as calculated by ProUCL was used to represent the BTV.<sup>3</sup> The results of this analysis are presented in Appendix B (Tables B.11 through B.14).

- Dump Site sample concentrations were compared to the estimated BTVs (see Appendix B, Table B.15). For most COPCs, the majority of samples from the Dump Site exceeded the BTVs, and those COPCs were retained for further analysis in the BERA. However, for some COPCs, only a limited number of samples exceeded the BTV. As discussed above, the 95% USL BTV has a 95% confidence level, meaning that there is a 5% chance of concluding (in error) that a sample is above background when it is in fact not significantly different from background. Specifically, the number of samples exceeding the BTV in soil for Al, beryllium (Be), Fe, manganese (Mn), and vanadium (V) was found to be low (*e.g.*,  $< 10\%$ ). Thus, an additional statistical evaluation was performed in the next step to determine whether there were significant differences between the background and Site data distributions for these COPCs in soils as well as in other media.
- For COPCs with only a small number of samples exceeding the BTV, statistical evaluations were conducted using the non-parametric Mann-Whitney test (WMW), as implemented within ProUCL (Singh and Singh, 2013). The WMW is used for determining whether a difference exists between a site and a background population distribution (Singh and Singh, 2013). When multiple detection limits were present in the data set, EPA recommends performing the Gehan test. The Gehan test is one of several nonparametric tests that have been proposed to test for the differences between two populations when their data sets have multiple censoring points and detection limits (Singh and Singh, 2013). The results of the statistical comparisons are provided in Appendix B (Table B.15).
- With the exception of Al, all inorganic COPCs were above BTVs or statistically greater than background in at least one environmental medium. Al concentrations were consistently within background levels in all media. Thus, based on background comparison, Al can be excluded as a BERA COPC.

In summary, after considering detection frequency, pH-dependent toxicity, and background comparison, Al, Fe, 1,1-biphenyl, and chloromethane were excluded from further analysis in this BERA. COPCs that were retained for detailed analysis in the BERA are listed in Table 5.

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<sup>3</sup> [In cases where ProUCL indicated that the dataset was insufficient to compute a meaningful statistic, the maximum detected concentration in the original dataset was used. This is shown in the notes to Tables B.11-B.14 as "No outliers removed; Low FOD%, 95% USL = Max. DT"](#)